02-60

December 18, 2007

Office of the Secretary
Federal Communications Commission
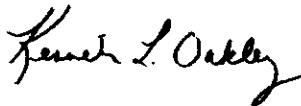445 12th Street SW
Washington, DC 20554

Kenneth L. Oakley, PhD, FACHE
Project Director
CEO, WNY Rural-Area Health Education Center
20 Duncan Street
Warsaw, NY
585-344-1022
koakley@r-ahec.org

Subject:
FCC Rural Healthcare Pilot Program - Western New York Rural Healthcare Broadband Network (WNY RHBN)
proposal

Sir/Madam,

This is to notify you that we are withdrawing the **proprietary and confidential** requirement in our proposal originally
submitted to the FCC in May, 2007. This document is open for public scrutiny and review.

Sincerely,

Kenneth L. Oakley

CEO, WNY R-AHEC

Western New York R·AHEC
Rural Area Health Education Center

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May 4, 2007

Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Kenneth L. Oakley, PhD, FACHE
Project Director
CEO, WNY Rural-Area Health Education Center
20 Duncan Street
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To Whom It May Concern:

On behalf of a consortium of 22 rural hospitals, 7 leading urban hospitals, and 2 major academic center offering medical education in Western New York, the **Western New York Rural-Area Health Education Center (WNY R-AHEC)** is honored to submit a proposal for the **Western New York Rural Broadband Healthcare Network (WNY RBHN)** in response to the **2007 FCC Rural Healthcare Broadband Pilot Project Request for Proposal.**

Home to about 1.2 million Americans, rural communities in the Western NY region have **a fragmented model of healthcare delivery with poor access to quality, affordable healthcare.** While these rural communities have adequate numbers of primary care providers, specialists are more often located in urban areas that may be some distance away. Due to this rural-urban separation, interactions between the primary care providers and specialists are limited and poorly coordinated, and often puts the burden on the patient to coordinate their care between the healthcare providers.

The Western New York Rural Healthcare Broadband Network (WNY RHBN) is the core of our proposal – a network will provide each member facility a minimum of 100 Megabits per second (Mbps) bandwidth, connecting them over a secure enterprise wide-area-network, with Quality of Service (QoS) features and the option of connecting to Internet 1 & 2. When fully implemented this planned healthcare network will bring services to these areas through innovative health information technology applications, including telemedicine, imaging, and electronic medical records. Our ultimate goal is to provide equitable healthcare across the WNY region, by improving access to experienced, specialty physicians and critical life-saving treatments, and enhancing the overall healthcare quality in the rural communities of Western New York. The connectivity of the major academic centers in the region, urban and rural healthcare facilities will also provide a platform for continuing education, clinical trials, measuring quality outcomes and enhancing coordination of care, as well as the critical end-points that could potentially provide much-needed capacity and support in the event of a national crisis.
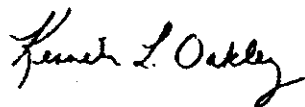
The **WNY Rural Area Health Education Center (WNY R-AHEC)** is a non-profit independent facilitation organization focused on assuring effective health services across rural communities in Western New York. Headquartered in Warsaw, New York, the **WNY R-AHEC currently plays a significant role in bringing healthcare education, health workforce development, and healthcare technology implementation to a 14-county catchment area with the Western New York Region.** For the purpose of this proposal, the WNY R-AHEC has built a consortium of 31 rural and urban healthcare partners (2 post-secondary academic institutions providing medical education, 7 urban tertiary-care centers, and 22 rural hospitals) with the unified vision of designing and implementing a regional broadband healthcare network which will interconnect the member institutions and which will provide the "digital pipeline" for seamlessly conducting telemedicine consultations, exchanging high-resolution radiological data, organizing clinical grand-rounds, and developing opportunities for clinical research and education in rural hospitals.

As an organization dedicated to improving the access to quality healthcare in our community, we clearly understand, value, and support the need to develop the broadband infrastructure in rural Western New York to enhance and improve the current model of fragmented healthcare in our rural communities. This need is critical especially in the vulnerable rural communities where the access to quality and cost-effective care is difficult. We are pleased that the FCC has taken a lead in the addressing this disparity, and are confident that the collaborative effort of the partners in this project will produce the intended results in improved patient-centric care with the use of healthcare technologies.

We are confident that this project meets the objectives and requirements of FCC Rural Healthcare Pilot Program. First, it identifies and supports FCC's objectives for development and investment in broadband connectivity on a regional level by aggregating the needs of approximately 30 rural and urban healthcare facilities in WNY region. Second, the project will leverage existing facilities, technologies, and applications on a regional-basis in developing an efficient and cost-effective model for implementing the WNY RHBN. Third, the WNY region has a rich history in developing and sustaining telemedicine and health information technology (HIT) applications and network development activities, as well as the depth of talent and resources to successfully design, develop, and implement the WNY Rural Broadband Healthcare Network, and manage it efficiently and effectively in the long-run.

In conclusion, again, we submit our proposal to this innovative and collaborative pilot project initiated by the FCC. WNY R-AHEC's long-standing history of providing healthcare work-force training and development in rural communities, and its recent implementation of NY State's TeleStroke Pilot Project in upstate New York make it a natural applicant to plan, coordinate, and implement the proposed project.

Sincerely,

Kenneth L. Oakley

CEO, WNY R-AHEC

TABLE OF CONTENTS

FCC RURAL BROADBAND PILOT PROJECT
Western New York Rural Broadband Healthcare Network
(WNY RBHN)

WNY Rural Broadband Healthcare Network
WNY R-AHEC

New York. Headquartered in Warsaw, New York, the WNY R-AHEC currently plays a significant role in bringing healthcare education, health workforce development, and healthcare technology implementation to a 14-county catchment area with the Western and Finger Lakes regions of New York State. For the purpose of this proposal, the WNY R-AHEC has built a consortium of 2 post-secondary academic institutions providing medical education, 7 urban tertiary-care centers, and 21 rural hospitals with the unified vision of designing and implementing a regional broadband healthcare network which will interconnect the member institutions and which will provide the "digital pipeline" for seamlessly conducting telemedicine consultations, exchanging high-resolution radiological data, organizing clinical grand-rounds, and developing opportunities for clinical research and education in rural hospitals.

This project meets the objectives and requirements of FCC Rural Healthcare Pilot Program. First, it identifies and supports FCC's objectives for development and investment in broadband connectivity on a regional level by aggregating the needs of approximately 30 rural and urban healthcare facilities in WNY region. Second, the project will leverage existing facilities, technologies, and applications on a regional-basis in developing an efficient and cost-effective model for implementing the WNY RHBN. Third, the WNY region has a rich history in developing and sustaining telemedicine and health information technology (HIT) applications and network development activities, as well as the depth of talent and resources to successfully design, develop, and implement the WNY Rural Broadband Healthcare Network, and manage it efficiently and effectively in the long-run.

WNY Rural Broadband Healthcare Network
WNY R-AHEC

While a majority of these projects are focused on the healthcare technology applications, there has been very limited focus on developing the broadband infrastructure to ensure the availability of the digital pipes to disseminate these applications to the rural end-points in the region. Until now, a relative status-quo has been maintained on regional infrastructure development, with individual healthcare facilities expanding their networks on an as-needed basis. Also, while there has been significant activity in healthcare technology applications development separately in the Buffalo and Rochester metropolitan areas, there has not been any major effort to aggregate the healthcare technology needs of the WNY region as a whole, and to address the healthcare delivery issues facing the rural communities of WNY region discussed above.

Role of the WNY R-AHEC

The Western New York Rural Area Health Education Center (R-AHEC) is a 501(c)3 not-for-profit organization, created in 1998 through a combined effort of community, state and federal entities. The first of nine such Centers located throughout New York State, R-AHEC's mission is "to improve health and healthcare through education". The R-AHEC serves as a facilitator for approximately 20 rural hospitals, about 10 metropolitan hospitals, and 5600 (4600 urban/1000 rural) physicians in a 14-county region in Western New York.

The current priority areas for the R-AHEC include preceptor development, promotion of rural technology acquisition and deployment, student pipeline programming and workforce development (recruitment/retention/continuing education). The R-AHEC is a beneficiary of the Rural Telemedicine Grant from the Office for the Advancement of Telehealth, under the Department of Health and Human Services, and is key player in the development and implementation of telemedicine in the rural communities in Western New York counties, partnering in New York State's roll-out of A NYS TeleStroke Pilot Project.

The WNY R-AHEC has a major responsibility in addressing the needs of its rural healthcare constituents in Western NY. As a precursor to this grant proposal, the WNY R-AHEC has collaborated with multiple organizations in metropolitan Buffalo and Rochester as the representative of the rural entities in the region. The following is a list of the major collaborations and projects to date:

(3) eliminating regulatory barriers to the use of telemedicine,
(4) providing financial assistance to rural providers for
investments in EHRs and ICT,
(5) fostering ICT collaborations and demonstrations in rural
areas, and
(6) providing ongoing educational and technical assistance to
rural communities so they can make the best use of ICT."

The WNY R-AHEC and its partners in this proposal wholly endorse the action items proposed by the Committee on the Future of Rural Health Care. To this extent, the WNY R-AHEC has built a consortium of 30 rural and urban healthcare facilities in the WNY NY region with a unified and single focus to design, develop and implement the WNY Rural Broadband Healthcare Network (RBHN), which could connect approximately 20 rural WNY hospitals - serving a population of 1.2 million New Yorkers - to regional urban tertiary-care centers, and significantly improve their access to efficient, quality and affordable healthcare, and enhance the coordination and timeliness of clinical information exchange, through the adoption of telemedicine and other healthcare technologies such as electronic health records and digital radiological imaging.
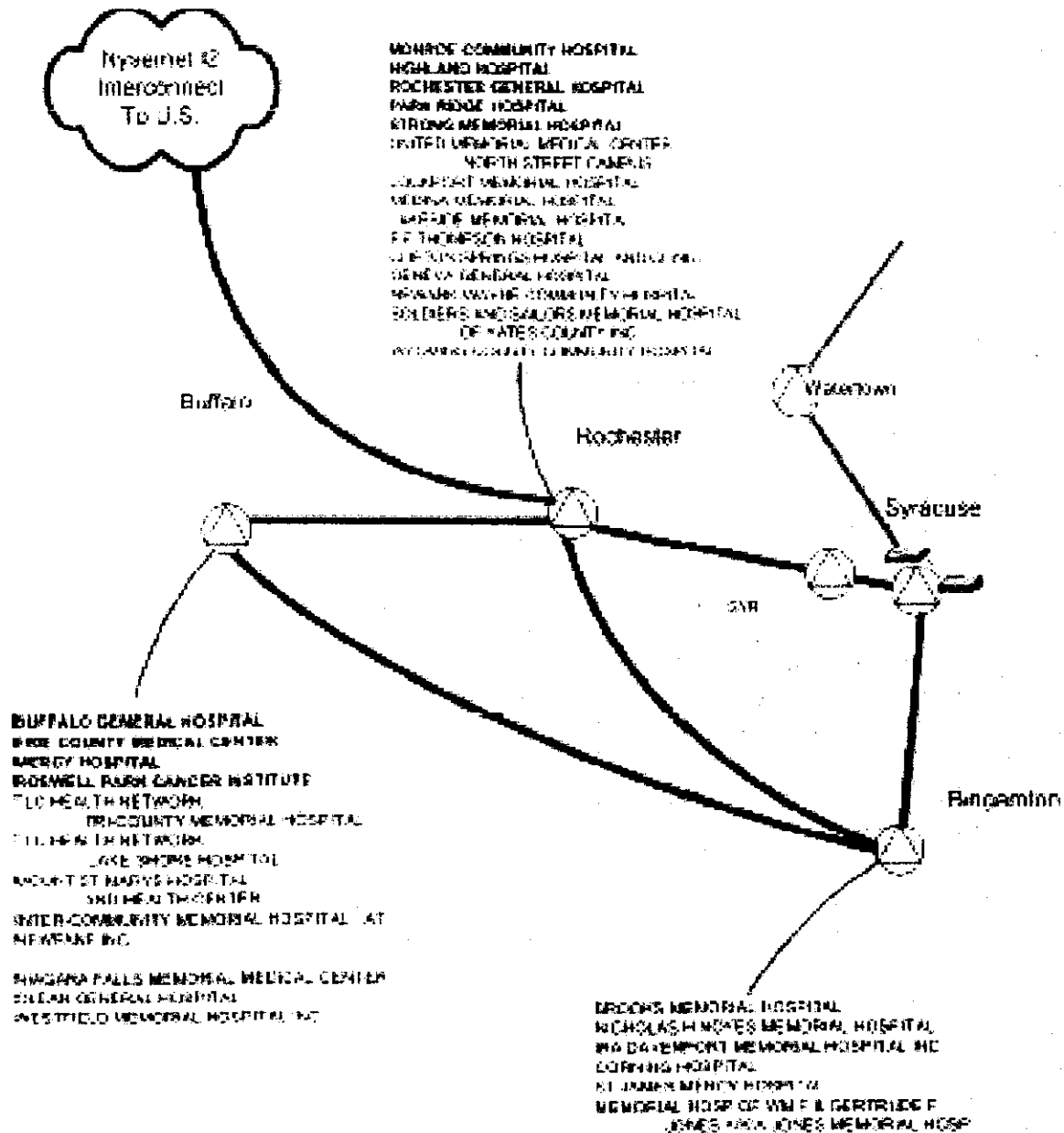
Usage Usage is defined as the number of packets transmitted from the input port of the network provider access router to the network provider Internet access router (which connects to the Level 1 provider). The network provider collects customer usage information and provides that information in regular reports.

Maintenance

Mean Time to Restore The Mean Time to Restore (MTTR) measurement for a service is the average time between the time network provider opens a customer trouble ticket (customer notifies network provider) and the time the service is restored. The average is calculated on all trouble tickets with the same severity level associated with the same network interruption.

There are four priority levels of trouble ticket severity (Critical, Major, Minor, and Informational).

MTTR Objective:

Severity 1 – Critical Average within 2 hours
Severity 2 – Major Average within 4 hours
Severity 3 – Minor Average within 12 hours
Severity 4 – Informational Not Measured

Routine Network Maintenance The network provider will perform Routine Network Maintenance for backbone improvements and preventive maintenance. The network provider will provide 7 days notice of all routine maintenance to the customer's designated point of contact. For urgent maintenance, the network provider shall notify the customer as soon as is commercially practical under the circumstances. Routine Network Maintenance will not be calculated against SLA measurements.

Service Level Guarantees

The following section is an example of the description of a network provider's network performance Service Level Guarantees for Dedicated Access. The following table represents monthly average guarantees and will support QOS standards and required throughput levels:

3. Designated Organization
(Organization that will be legally and financially responsible for the conduct of activities supported by the fund)

Applicant: Western New York Rural Area Health Education Center, Inc.

The Western New York Rural Area Health Education Center (R-AHEC) is a 501(c)3 not-for-profit organization, created in 1998 through a combined effort of community, state and federal entities. The R-AHEC serves as a facilitator for approximately 20 rural hospitals, about 10 metropolitan hospitals, and 5600 (4600 urban/1000 rural) physicians in a 14-county region in Western New York. Additionally, the R-AHEC is a beneficiary of the Rural Telemedicine Grant from the Office for the Advancement of Telehealth, under the Department of Health and Human Services, and is key player in the development and implementation of telemedicine in the rural communities in Western New York counties, partnering in New York State's roll-out of TeleStroke Pilot Project.

The current priority areas for the R-AHEC include preceptor development, promotion of rural technology acquisition and deployment, student pipeline programming and workforce development (recruitment/retention/continuing education).

The R-AHEC presently benefits from one of NYS Department of Health's larger multi-year grant awards under the State's Health Workforce Retraining Initiative. This program currently engages 39 health care provider partners and 23 academic partners over a 23 county area. In June of 2006, the National AHEC Organization (a membership organization representing over 225 AHECs across 47 states) selected the Western New York Rural AHEC as one of its six 2006 national "Centers of Excellence" for their outstanding accomplishments in this area.

As a community based facilitation resource, the R-AHEC is viewed by its provider (and education) partners as a credible neutral coordinating entity well-positioned to foster and support region-wide broadband deployment to rural hospitals and health centers located throughout the Western and Finger Lake regions of Upstate New York. For the purpose of this FCC proposal, the WNY R-AHEC has built a consortium for 30+ WNY academic institutions, and rural and urban hospitals. The members have provided (or are in the process of providing) the WNY R-AHEC a **Letter of Support** and a **Memorandum of**

4. Project Goals & Objectives
(Identify the goals and objectives of the proposed network.)

In the development for this proposal, the WNY R-AHEC and its partners have been dedicating significant time and effort in:

1) Conducting an in-depth broadband infrastructure needs assessment of each of the participating healthcare entities

2) Researching and evaluating existing facilities and technologies to develop a cost-effective model of the proposed regional broadband healthcare network that is scalable and sustainable, and will adhere and adapt to the evolving statewide and national broadband healthcare network standards

3) Research and develop a model for centralized management and support of the proposed network

4) Research and develop a governance and administration model to ensure the sustainability of the proposed network

By establishing the proposed WNY Rural Broadband Healthcare Network (RBHN), we plan to achieve the following objectives:

a. Augment and/or replace existing lower bandwidth connectivity with a minimum of 100 megabits of bandwidth.

b. Foster and enable the expedited rollout of telemedicine and related healthcare technology applications and distance learning technologies across the region.

c. Enable Application services Provider (ASP) – Model pilot projects for functions and services such as centralized PACS, EHRs, E-prescribing, and other health related initiatives.

d. Establish the foundation upon which to ultimately develop a Rural Health Resource Cooperative capable of providing shared:

- High-level technical, clinical, and content specific expertise to rural hospital, clinic, health-centers and physician practice members.

- Region-wide planning and resource acquisition services.

5. Estimated Total Expense
(Estimate the networks total costs for each year.)

County	Hospital	Cost Estimates								
2 Urban Counties	2 Post-Secondary Educational Institutions offering healthcare Instruction	Year 1					Year 2			
14 Rural Counties	7 Urban Hospitals	Non Recurring-Initial Design Studies	Non Recurring-Infrastructure build-out	Monthly Recurring Transmission Facilities	Monthly Recurring Internet Services	Monthly Recurring Internet2 connection	Monthly Recurring Transmission Facilities	Monthly Recurring Internet Services	Monthly Recurring Internet2 connection
	22 Rural Hospitals								
	Line Item Totals	$ 403,000	$ 930,000	$ 1,116,000	$ 1,116,000	$ 279,000	$ 1,116,000	$ 1,116,000	$ 961,000
	Project Totals - By Year	$				3,844,000	$			3,193,000
	Grand Project Totals - Year 1 & Year 2	$								7,037,000

Note: The Estimated Total Expenses indicated for years 1 and 2 are the maximum projected expenses. The actual expenses could change due to the following:

1) **Hospitals deferring implementation from year 1 to year 2**
2) **Lower non-recurring costs for Initial Design Studies and for Infrastructure Build-out**
3) **Hospitals opting out of Internet 2 connection due to existing connectivity to Internet 2.**

A detailed break-down of the network cost estimates by urban and rural facility is shown on the next page

6. *Describes Network Costs/ Funding*

(Describe how for-profit network participants will pay their fair share of network costs.)

Description of Network Costs				
Non Recurring-Initial Design Studies	Non Recurring-Infrastructure build-out	Monthly Recurring-Transmission Facilities	Monthly Recurring-Internet Services	Monthly Recurring-Internet2 connection
The Non- Recurring Initial Design Studies cost comprises of the costs associated with assessing and developing a local-loop facilities engineering solution for each of the 28 urban and rural facility listed in the network cost model	The Non-Recurring Infrastructure cost comprises of the costs associated with building out the local-loop facilities engineering solution for each of the 28 urban and rural facility listed in the network cost model to prepare the individual facility to have a minimum of 100 Mbps bandwidth	The Monthly-Recurring Transmission Facilities cost comprises of the recurring monthly costs associated with maintaining a 100 Mbps bandwidth connection at each of the facilities listed in the network cost model	The Monthly-Recurring Internet Services cost comprises of the recurring monthly costs associated with running commercial Internet services over the 100 Mbps pipe at each of the facilities listed in the network cost model	The Monthly-Recurring Internet 2 cost comprises of the recurring monthly costs associated with connecting to Internet 2 at 25 Mbps over the 100 Mbps pipe at each of the facilities listed in the network cost model

Note:

1. The costs provided in the Network Cost Estimates for (a) Non-recurring Initial Design Studies, and (b) Non-recurring Infrastructure Build-out are **estimated average costs.** The actual costs may exceed and come under the estimated average costs, based on an actual facility design study at an individual study to be conducted at a later date. When available, these actual costs will be incorporated into the Network Cost Model.

2. The (a) Non-recurring Initial Design Studies, and (b) Non-recurring Infrastructure Build-out are applied only for Year 1 in the Network Cost Estimate Model

3. Not all of the 7 urban healthcare facilities and the 21 rural healthcare facilities may be able to begin implementation in year 1 of the project, if funded. The readiness of a healthcare facility to start implementation will be determined based on the initial design study at each facility.

4. In year 2, the project plan will accommodate for the addition of qualifying rural and urban healthcare facilities not included in the current list, working in conjunction with the FCC.

5. During the two-year FCC pilot project period, this project intends to only engage not-for-profit academic centers, hospitals, clinics, and health centers in the initial broadband network. For profit

7. Financial Support

(Identify the source of financial support and anticipated revenues that will pay for costs not covered by the fund.)

The Network Cost Estimates are provided with the key assumption that, if funded, each qualifying participating facility will receive an FCC subsidy of 85% for all the line items indicated in the cost model. The remaining 15% for all the line items indicated in the cost model will be provided by each benefiting partner facility. Additional initial in-kind support for the project will come from participant reallocation of existing HIT resources, subscription fees, ancillary member usage fees, and other participant in-kind. Over the longer term, added financial support will also be sought through direct fees for service, local health and insurance foundations, work-force investment board funding, potential state infrastructure development subsidies, competitive grants, and long term low interest capital/economic development loans.

One of the key mandates of the Business Advisory Board for the project will be to seek additional federal, state, and regional funding sources to ensure the long-term operational and financial sustainability of the WNY RBHN.

County	Hospital	Street	Town	Zip	ST	RUCA CODE
URBAN ACADEMIC CENTERS AND HOSPITALS						
Monroe	PARK RIDGE HOSPITAL	1555 LONG POND ROAD	ROCHESTER	14626	NY	
Monroe	ROCHESTER GENERAL HOSPITAL	1425 PORTLAND AVENUE	ROCHESTER	14621	NY	
Monroe	UNIVERSITY of ROCHESTER	240 Wallis Hall	ROCHESTER	14627	NY	
Monroe	STRONG MEMORIAL HOSPITAL	601 ELMWOOD AVENUE	ROCHESTER	14642	NY	
Erie	STATE UNIVERSITY OF NEW YORK at BUFFALO	501 Capen Hall	BUFFALO	14260	NY	
Erie	BUFFALO GENERAL HOSPITAL	100 HIGH STREET	BUFFALO	14203	NY	
Erie	ERIE COUNTY MEDICAL CENTER	462 GRIDER STREET	BUFFALO	14215	NY	
Erie	ROSWELL PARK CANCER INSTITUTE	ELM AND CARLTON STREETS	BUFFALO	14263	NY	
Erie	MERCY HOSPITAL	565 ABBOTT ROAD	BUFFALO	14220	NY	
RURAL HOSPITALS						
Allegany	JONES MEMORIAL HOSP	191 NORTH MAIN STREET	WELLSVILLE	14895	NY	7
Allegany	CUBA Memorial	40 WEST MAIN STREET	CUBA	14727	NY	10.5
Cattaraugus	TLC HEALTH NETWORK TRI-COUNTY & Lakeshore	100 MEMORIAL DRIVE	GOWANDA	14070	NY	7.1
Cattaraugus	OLEAN GENERAL HOSPITAL	515 MAIN STREET	OLEAN	14760	NY	4
Chautauqua	WESTFIELD MEMORIAL HOSPITAL INC	189 E MAIN STREET	WESTFIELD	14787	NY	7.4
Chautauqua	BROOKS MEMORIAL HOSPITAL	529 CENTRAL AVENUE	DUNKIRK	14048	NY	4
Chautauqua	WCA HOSPITAL	207 FOOTE AVENUE	JAMESTOWN	14702	NY	4
Chemung	ARNOT OGDEN MEDICAL CENTER	600 Roe Avenue	Elmira	14905	NY	1
Chemung	ST. JOSEPH'S HOSPITAL	555 East Market Street	Elmira	14901	NY	1
Genesee	UNITED MEMORIAL MEDICAL CENTER	127 NORTH ST	BATAVIA	14020	NY	4.2
Livingston	NICHOLAS H NOYES MEMORIAL HOSPITAL	111 CLARA BARTON STREET	DANSVILLE	14437	NY	7.3
Monroe	LAKESIDE MEMORIAL HOSPITAL	156 WEST AVENUE	BROCKPORT	14420	NY	1
Niagara	MOUNT ST MARYS HOSPITAL AND HEALTH CENTER	5300 MILITARY ROAD	LEWISTON	14092	NY	1
Niagara	NIAGARA FALLS MEMORIAL MEDICAL CEN	621 TENTH STREET	NIAGARA FALLS	14302	NY	1
Niagara	LOCKPORT MEMORIAL HOSPITAL	521 EAST AVENUE	LOCKPORT	14094	NY	4
Niagara	INTER-COMMUNITY MEMORIAL HOSPITAL AT NEWFANE INC	2600 WILLIAM STREET	NEWFANE	14108	NY	5.2
Ontario	CLIFTON SPRINGS HOSPITAL AND CLINIC	2 COULTER ROAD	CLIFTON SPRINGS	14432	NY	4.1
Ontario	GENEVA GENERAL HOSPITAL	196-198 NORTH STREET	GENEVA	14456	NY	4
Ontario	F F THOMPSON HOSPITAL	350 PARRISH STREET	CANANDAIGUA	14424	NY	4.1
Orleans	Oak Orchard Community Health Center	301 West Avenue	Albion	14411	NY	3
Orleans	MEDINA MEMORIAL HOSPITAL	200 OHIO STREET	MEDINA	14103	NY	7
Schuyler	SCHUYLER HOSPITAL	220 Steuben Street	Montour Falls	14865	NY	10.4
Steuben	ST JAMES MERCY HOSPITAL	411 CANISTEO STREET	HORNELL	14843	NY	4
Steuben	CORNING HOSPITAL	176 DENISON PARKWAY EAST	CORNING	14830	NY	4.1
Steuben	IRA DAVENPORT MEMORIAL HOSPITAL INC	BOX 350 ROUTE 54	BATH	14810	NY	7.4
Wayne	NEWARK-WAYNE COMMUNITY HOSPITAL	111 DRIVING PARK AVENUE	NEWARK	14513	NY	4.1
Wayne	FINGER LAKES MIGRANT HEALTH	6000 MIDDLE ROAD	Sodus	14551	NY	2
Wyoming	WYOMING COUNTY COMMUNITY HOSPI	400 NORTH MAIN STREE	WARSAW	14569	NY	7
Wyoming	WNY R-AHEC - Thiel Center	20 Duncan Street	WARSAW	14569	NY	7
Yates	SOLDIERS AND SAILORS MEMORIAL HOSPITAL OF YATES COUNTY INC	418 NORTH MAIN STREET	PENN YAN	14527	NY	7

9. *Prior Experience in Developing and Managing telemedicine programs*

(Indicate previous experience in developing and managing telemedicine programs.)

Over the past five years, the R-AHEC has been an advocate and coordinator for rural healthcare technology infrastructure development, including telemedicine and other healthcare technology applications and services throughout Western New York. Most recently, the organization partnered with the Genesee Gateway Local Development Corporation (the Genesee County Economic Development Agency), on a rural telemedicine pilot project funded by the Office of Advancement of Telehealth (OAT), under the Department of Health and Human Services (HHS). The project, titled the **Upstate New York Telemedicine Study**, called for the R-AHEC and its CEO, Dr. Kenneth Oakley - the project's Principal Investigator, to conduct an in-depth assessment and investigation of the telemedicine interests and preparedness of health and human service providers within Orleans, Genesee, and Wyoming counties of Western New York. This effort culminated with the R-AHEC partnering with OAT and the Office of Rural Health at NY Department of Health to develop, plan and implement telestroke application in three rural Western NY hospitals – Medina Memorial Hospital in Medina, NY, United Memorial Medical Center in Batavia, NY, and Wyoming County Community Hospital in Warsaw, NY. This enabled them to actively participate in the New York State Rural Telestroke Project.

The R-AHEC, in association with Kaleida Health - the region's largest telestroke HUB facility, is now working to expand the telestroke initiative throughout all of Western New York and to add additional telemedicine applications beginning with telecardiology. These applications will likely then be followed by rural telepsychiatry, teledermatology, and teleradiology utilizing a centralized PACS system in an Application Services Provider (ASP) model.

The R-AHEC is also currently working with the State Office of Mental Health and the region's mental health providers in the pilot rollout of the State's 2007 Adult and Adolescent Telepsychiatry Assessment, Education, and Consultation project.

Project Management

Project leadership and overall management for this pilot will be kept intentionally lean depending heavily upon the existing available resources of the WNY R-AHEC as coordinating sponsor. From initial onset however, an informal advisory group (comprised of select participating partners) will be established to help guide and direct project rollout.

A former hospital chief executive, Kenneth L. Oakley, Ph.D. FACHE currently serves as the Chief Executive Officer of the Western New York Rural Area Health Education Center and will also serve as Project Leader for the pilot. Dr. Oakley holds Doctorate in Management and Masters in Business Administration Degrees from California Coast University as well as a Masters in Counseling Degree from Louisiana Tech University. He is a nationally board certified health care executive (a Fellow in the American College of Health Care Executives) with over 28 years senior administrative experience within Western New York health and human service facilities. A 13-year member of the State's Rural Health Council, Dr. Oakley further holds adjunct faculty appointments as an Assistant Research Professor at the University at Buffalo's Schools of Medicine and Public Health. He currently co-chairs the National AHEC Organization's National Committee on Research and Evaluation.

Sandeep Krishnan, MS, MBA is a consultant and partner with MedTec International, a healthcare technology consulting firm based in Rochester, NY. He shall serve as an overall technical consultant to Dr. Oakley in project start-up and to the various pilot partners on a part-time as needed basis thereafter. Mr. Krishnan's area of concentration is in healthcare information systems, telehealth systems, and healthcare technology infrastructure development. He is currently a consultant with the WNY Rural Telehealth project (directed by the R-AHEC), as well as other projects with a focus in providing access to affordable and quality healthcare to rural communities across Western New York using innovative technologies. He holds an MBA from the Simon School of Business Administration at the University of Rochester, with majors in Management Information Systems (MIS), Finance, and Operations. Previously, he was the Program Manager with Stryker Corporation responsible for the sales engineering and

<u>**Work Plan**</u>

The WNY R-AHEC proposes the project activities, the associated timelines, and the project organization as indicated in the project tables below:

Table 1: Project Work Plan

Project	FCC Proposal Western NY Rural Healthcare Network		
Scope:	This project work plan lists the tasks that will be performed during each of the defined phases of the project		
Proposed Project Team:	Dr. Ken Oakley (Director), Sandeep Krishnan (Project Manager), Business Advisory Team, Technical Advisory Team, Partner Hospital Representative, Telco Vendor Rep.		
	Proposal Development Phase	**Post-Proposal Phase**	**Proposal Award Phase**
1A	Proposal Development TASKS	Post-proposal TASKS	Proposal Awarded TASKS
	Outreach to partners	Develop project administration model at R-AHEC	FCC Forms 465 & 466 Filing
	Develop framework of engagement for proposal	Facilities assessment at partner hospital	Bid Process and Vendor Selection
	Develop and distribute letter of support and MOU templates	Develop facilities migration plan per hospital (as needed)	Facilities Build-out - Rural
	Collect LOS and MOU	Initiate meetings with telco and cable companies to evaluate facilities at each partner facility	Facilities Build-out - Urban
	Develop Narrative	Develop a scope of work and cost model for migrating each partner facility to a minimum 100 Mb pipe	Interconnections and testing
	Develop Technical Plans	Develop overall network QoS and security models	Applications testing
	Technical Level Conference Call	Develop bid requirements for planning and implementing the network, if funding proposal is awarded	Network Turn-up
	Develop cost estimates	Communicate with partners, technical and business advisory teams	
	Complete Proposal Package	Amend FCC proposal if needed	
	Send Proposal	Develop project execution plans if funded	

Table 2: Project Activities and Timelines

	2007					2008			
Activities	January-March	April-May	June-August	Sept.-Oct.	Nov.-Dec.	Jan.-Feb.	Mar.-April	May-June	JUNE
Developing Consortium									
Technical and Business Plans – Proposal Development									
Proposal Completion and submission									
Broadband facilities assessment at partner facilities									

WNY Rural Broadband Healthcare Network
WNY R-AHEC

Applications Testing	X		X	X	X
Network Testing	X		X	X	X
Network Turn-up	X	X	X	X	X

Integration Hub. Once these applications are ready for distribution, the availability of the WNY RBHN will be a significant enabler for the rural hospitals to reap the benefits of these applications over a dedicated healthcare network.

A brief description for some of the noteworthy telemedicine and HIT initiatives in the WNY region is provided below:

   A. University at Buffalo (UB) /Erie County Medical Center (ECMC) Telemedicine Program

   B. NY State TeleStroke Project

   C. Healthcare Efficiency and Affordability Law for New Yorkers (HEAL-NY) Capital Grant Program

   D. Kaleida HEAL 3 TeleCardiology Grant Funding Proposal

A.   University at Buffalo (UB) /Erie County Medical Center (ECMC) Telemedicine Program:

The UB/ECMC Telemedicine Program has been actively providing telemedicine services in Emergency Medicine, Psychiatry, Gastroenterology and Orthopedics since July, 1994 to rural healthcare facilities and rural correctional facilities across New York State. In providing care for over 15,000 patients over the last 12 years and approximately 3000 telemedicine patients per year currently in 54 facilities across the State (see map), the UB/ECMC program physicians are acutely aware of the ability of telemedicine to provide near-instantaneous access to high-quality, University-based, specialty medical care regardless of the patient location – in some cases hundreds of miles from such a healthcare facility in the State. With current initiatives to rural communities and healthcare facilities in western New York ongoing in the clinical areas of Emergency Trauma/Burn, Psychiatry, and Dermatology, we believe that the increased availability of broadband connectivity provided by the WNY Rural Healthcare Network will have a profound effect in the region's

appropriate, t-PA from any broadband-connected
laptop/computer using wireless WEB based equipment

Background

- Estimated 700,000 to 750,000 new or recurrent strokes occur each year in the U.S.
- Stroke remains the leading cause of disability and the leading cause of death
- **Time is Brain**

REACH System

Developed at Medical College of Georgia

- 100% WEB based service that provides decision support solutions for remote diagnosis and evaluation of acute diseases such as stroke
- REACH is developed, hosted and supported by REACHMDConsult, Inc. based in Augusta, GA and East Brunswick, NJ
- Clinical expertise of neurologists at HUB Hospital will allow physician consultation in evaluation and, if appropriate, approve administration of t-PA to acute stroke patients
- Network allows for full-time (24/7) availability of New York State licensed neurologists over secure internet connection
- Allows physicians to rapidly consult on stroke patients at a rural hospital from any computer with high speed internet access. Real time video of patients' images anywhere. Immediate access to care - more patients will be seen within the t-PA therapeutic window).
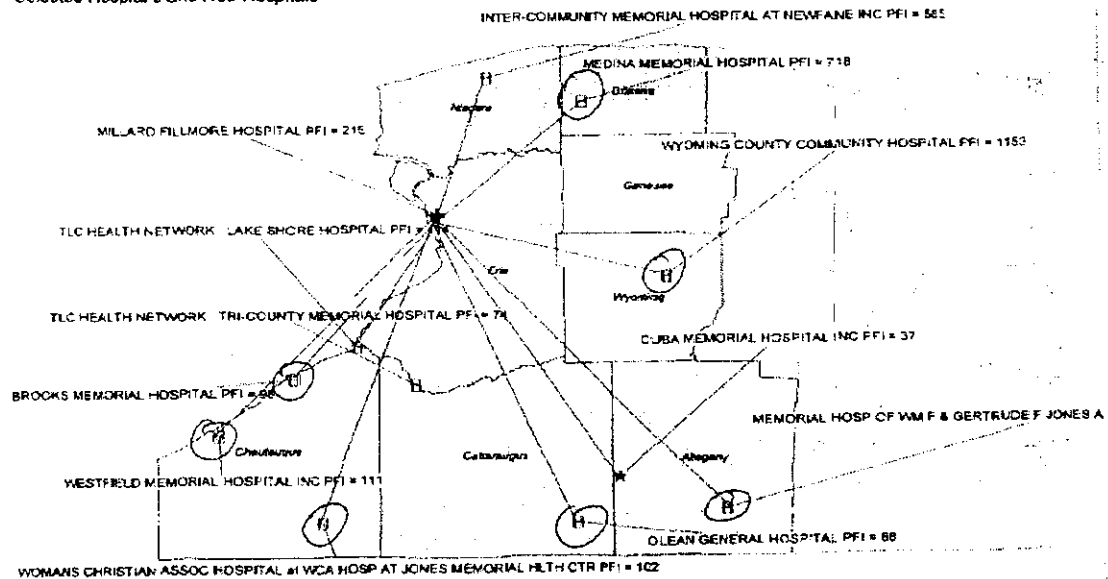
Proposed Implementation

- All Rural Hospitals SPOKED to 5 HUB New York State Hospitals -- Trauma Resource Centers
- Informational meetings held with Iroquois Health Consortium, Western Region Consortium, HANYS Hospital Association, New York State as well as around State
- Commissioner physician neurologist workgroup established
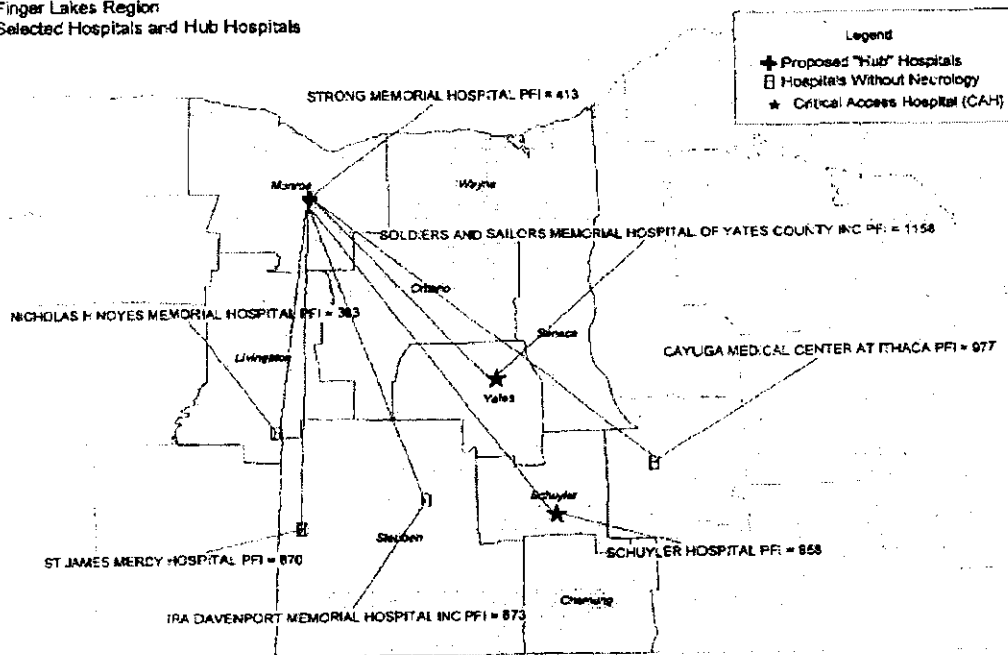
WNY Rural Broadband Healthcare Network
WNY R-AHEC
Maps of the TeleStroke Hubs and Spokes in the Westerns NY Region

Western Region
Selected Hospitals and Hub Hospitals

INTER-COMMUNITY MEMORIAL HOSPITAL AT NEWFANE INC PFI = 585

MEDINA MEMORIAL HOSPITAL PFI = 718

MILLARD FILLMORE HOSPITAL PFI = 215

WYOMING COUNTY COMMUNITY HOSPITAL PFI = 1153

TLC HEALTH NETWORK   LAKE SHORE HOSPITAL PFI =

TLC HEALTH NETWORK   TRI-COUNTY MEMORIAL HOSPITAL PFI = 74

CUBA MEMORIAL HOSPITAL INC PFI = 37

BROOKS MEMORIAL HOSPITAL PFI =

MEMORIAL HOSP OF WM F & GERTRUDE F JONES A

WESTFIELD MEMORIAL HOSPITAL INC PFI = 111

OLEAN GENERAL HOSPITAL PFI = 68

WOMANS CHRISTIAN ASSOC HOSPITAL at WCA HOSP AT JONES MEMORIAL HLTH CTR PFI = 102

Finger Lakes Region
Selected Hospitals and Hub Hospitals

Legend
+ Proposed "Hub" Hospitals
H Hospitals Without Neurology
★ Critical Access Hospital (CAH)

STRONG MEMORIAL HOSPITAL PFI = 413

SOLDIERS AND SAILORS MEMORIAL HOSPITAL OF YATES COUNTY INC PFI = 1158

NICHOLAS H NOYES MEMORIAL HOSPITAL PFI = 303

CAYUGA MEDICAL CENTER AT ITHACA PFI = 977

ST JAMES MERCY HOSPITAL PFI = 870

SCHUYLER HOSPITAL PFI = 858

IRA DAVENPORT MEMORIAL HOSPITAL INC PFI = 873

WNY Rural Broadband Healthcare Network
WNY R-AHEC

- Continuing to both identify sources and directly provide capital funding to support building the infrastructure required to share medical data among stakeholders and ensuring that all stakeholders participate and contribute to the effort.
- Developing and promoting models for long-term sustainability that aligns costs with the benefits of health information exchange (HIE) emphasizing that all stakeholders must achieve benefits and sacrifice as necessary.
- Developing and encouraging use of metrics to measure performance from the perspective of patient care, public health, provider value and economic value.
- Coordinate communication regarding HIT to all New York stakeholders, utilizing the Department's tools, networks, and relationships with providers and practitioners.

The Western and Finger Lakes regions consist of Allegany, Cattaraugus, Cayuga, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Oswego, Schuyler, Steuben, Wayne, Wyoming, and Yates counties.

Project	Regional Networks	Award	Project Functionality	Project Contact
WNYHealtheNet, LLC/ Western NY Clinical Information Exchange	WESTERN - Catholic Health System; Erie County Medical Center; Kaleida Health; Roswell Park Cancer Institute; HealthNow NY; Independent Health Association, Inc.; Univera Healthcare; Buffalo Academy of Medicine; Buffalo Medical Group; Erie County DOH; SUNY Buffalo; Upstate NY Professional Health Care Information and Demonstration Project.	$3,521,848	Create an online community health network for clinical data exchange, develop data repository, e-prescribing and a diagnostic data network.	Michael Cropp Phone: 716-635-3995 E-mail: mcropp@independenthealth.com
Rochester Health Commission/ The Rochester Regional RHIO	CENTRAL - Kodak; Xerox; Wegmans; Excellus Preferred Care; Rochester Independent Practice Association; Greater Rochester	$4,386,750	Build an IT database and application integration hub that will accelerate the exchange of	Ted Kremer Phone: 585-256-4670 E-mail: tkremer@grrhio.org

D. Kaleida HEAL 3 TeleCardiology Grant Funding Proposal:

HEAL NY Phase III Technical Application

Eligible Applicant Name: Kaleida Health

Project Name: Expansion of HUB & Spoke Telemedicine Model to Cardiac Services

Executive Summary

Our vision for the project is to enhance and expand current clinical applications (telemedicine/e-medicine) in conjunction with REACHMD (REACH) and the WNY R-AHEC to maximize the capacity of emerging health information technologies for cardiac care and stroke. This effort will:

1. improve access to experienced, specialty physicians and critical life-saving treatments,
2. improve health care quality, and
3. increase financial efficiency.

Our ultimate goal is to provide equitable health care across the WNY region. In so doing, we will raise standards for providing health care by providing a platform for clinical trials, measuring quality outcomes and enhancing coordination of care.

The project deliverables are:

1. the creation of a telecardiac module,
2. the implementation of the telecardiac module in Western New York, and
3. the development of a triage call center to support both telestroke and telecardiac operations.

This project meets the objectives and requirements of HEAL NY phase III. First, it identifies and supports opportunities for development and investment in health IT initiatives on a regional level by leveraging an existing health IT project and expanding it to another medical specialty. Second, the project will take advantage of the health IT equipment and infrastructure that the hub and spoke hospitals

E. WNY R-AHEC's Rural Health Resource Cooperative

Technologies such as electronic medical records, personal health records, distributed digital imaging, e-prescribing, computerized order entry, and telemedicine can be used to significantly improve rural healthcare. They can also be used to open the doors for rural participation in state-of-the-art clinical trials and ongoing distance education and web based learning. These technologies can be implemented in a centralized application services provider (ASP) model that can make it cost-effective and accessible to virtually all rural providers.

The challenges in healthcare access, quality, and cost in rural communities can be addressed by leveraging a combination of the above health information technologies and healthcare work-force development and training, to improve and expand overall primary and specialty care delivery in rural communities. The WNY R-AHEC, as an unbiased champion for rural healthcare revitalization through technology and partnership, is in a unique position to take on this challenge, with the support of its rural and urban partners.

The **WNY Rural Health Resource Cooperative** is envisioned as a centralized rural healthcare resource facility for the rural WNY healthcare facilities to build, manage, and support their Healthcare IT (HIT) infrastructure, as well as develop and provide Practice Enhancement Services, and Practice-based Research Opportunities to its members. This Cooperative will be developed in association with local, regional, State and Federal partners. The WNY Rural Health Resource Cooperative will:
- Address key issues regarding rural healthcare quality, cost and delivery
- Assess and aggregate the HIT needs of the rural healthcare facilities in Western NY
- Focus on developing operational implementation models for effective healthcare technology solutions in rural healthcare settings which can be leveraged across multiple communities nationwide
- Provide Practice Enhancement Services
- Provide Practice-based Research Opportunities